

Data sheet

FM 050 (050-1BA10)

Technical data

Type FM 050 Module ID 08C2 3801 General information Counter 32 Bit (AB) Features 1 Counter 32 Bit (AB) Current consumption/power loss 75 mA Current consumption from backplane bus 75 mA Power loss 0.85 W Technical data digital inputs Number of inputs 100 m Cable length, shielded 100 m Cable length, unshielded 2 Raverse polarity protection of rated load voltage 2 Raverse polarity protection of rated load voltage 2 Current consumption from load voltage L+ (without load) 2 mA Rated value 2 Input voltage for signal *1°1 Differential signal RS422 Input voltage for signal *1°1 Differential signal RS422 Input voltage for signal *1°1 2 Connection of Two-Wire-BEROS possible 3 Max. permissible BERO quiescent current 4 Input delay of *1° to *1° 0.8 µs Input delay of *1° to *1° 0.8 µs Input delay of *1° to *1° 3 § by	Order no.	050-1BA10
Reverse polarity protection of rated load voltage L+ (without load) Rated voltage for signal 1°1 Input voltage for signal 1°1 Connection of Two-Wire-BEROs possible Max. permissible BERO quiescent current Input delay of 1°1 to 1° Number of simultaneously utilizable inputs horizontal Input characteristic curve Initial data digital outputs Reverse polarity or simultaneously utilizable inputs horizontal Input characteristic curve Insultaneously utilizable (without load) Rated load of simultaneously utilizable (apputs where of outputs) Reverse polarity protection of rated load voltage L+ (without load) Rated value Input voltage for signal 1°1 Differential signal RS422 Input voltage for signal 1°1 Connection of Two-Wire-BEROs possible Reverse polarity or signal 1°1 Reverse polarity or signal 1°2 Reverse polarity or signal 1°2 Reverse polarity or signal 1°3 Reverse polarity or signal 1°3 Reverse polarity or signal 1°4 Reverse polarity or signal 1°4 Reverse polarity or signal 1°5 Reverse polarity or signal 1°5 Reverse polarity or signal 1°6 Reverse polarity or signal 1°6 Reverse polarity or signal 1°7 Reverse	Туре	FM 050
Note - Features 1 Counter 32 Bit (AB) DC 5 V (difference signal) Current consumption/power loss - Current consumption from backplane bus 75 mA Power loss 0.85 W Technical data digital inputs - Number of inputs - Cable length, shielded 100 m Cable length, unshielded - Rated load voltage DC 2428.8 V Reverse polarity protection of rated load voltage - Current consumption from load voltage L+ (without load) 20 mA Rated value - Input voltage for signal *10° Differential signal R\$422 Input voltage for signal *10° Differential signal R\$422 Input voltage for signal *1° - Frequency range - Input voltage for signal *1° - Connection of Two-Wire-BEROs possible - Max. permissible BERO quiescent current - Input delay of *0° to *1° 0° 8 μs Number of simultaneously utilizable inputs vertical configuration - Input characteristic curve	Module ID	08C2 3801
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Frequency range-Input resistance120 OhmInput current for signal "1"-Connection of Two-Wire-BEROs possible-Max. permissible BERO quiescent current-Input delay of "0" to "1"0.8 μsInput delay of "1" to "0"0.8 μsNumber of simultaneously utilizable inputs horizontal configuration-Input characteristic curve-Injut data size8 ByteTechnical data digital outputsNumber of outputs-Cable length, shielded-Cable length, unshielded-Catel load voltage-Current consumption from load voltage L+ (without load)-	Input voltage for signal "1"	Differential signal RS422
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Connection of Two-Wire-BEROs possible Max. permissible BERO quiescent current Input delay of "0" to "1" 0.8 Input delay of "1" to "0" 0.8 Number of simultaneously utilizable inputs horizontal configuration Number of simultaneously utilizable inputs vertical configuration Input characteristic curve Initial data size 8 Byte Technical data digital outputs Number of outputs - Cable length, shielded Cable length, unshielded Rated load voltage Current consumption from load voltage L+ (without load)	Input resistance	120 Ohm
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Number of simultaneously utilizable inputs horizontal configuration Number of simultaneously utilizable inputs vertical configuration Input characteristic curve Initial data size 8 Byte Technical data digital outputs Number of outputs Cable length, shielded Cable length, unshielded Rated load voltage Current consumption from load voltage L+ (without load)	Input delay of "0" to "1"	0.8 µs
Number of simultaneously utilizable inputs vertical configuration Input characteristic curve Initial data size 8 Byte Technical data digital outputs Number of outputs Cable length, shielded Cable length, unshielded Rated load voltage Current consumption from load voltage L+ (without load)	Input delay of "1" to "0"	0.8 µs
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Cable length, shielded - Cable length, unshielded - Rated load voltage - Current consumption from load voltage L+ (without load) -	Technical data digital outputs	
Cable length, unshielded - Rated load voltage - Current consumption from load voltage L+ (without load) -	Number of outputs	-
Rated load voltage - Current consumption from load voltage L+ (without load) -	Cable length, shielded	•
Current consumption from load voltage L+ (without load) -	Cable length, unshielded	-
	Rated load voltage	-
Output delay of "0" to "1" -	Current consumption from load voltage L+ (without load)	•
	Output delay of "0" to "1"	-

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Output delay of "1" to "0"	-
Minimum load current	-
Lamp load	-
Parallel switching of outputs for redundant control of a load	-
Parallel switching of outputs for increased power	-
Actuation of digital input	-
Switching frequency with resistive load	-
Switching frequency with inductive load	-
Switching frequency on lamp load	-
Internal limitation of inductive shut-off voltage	-
Short-circuit protection of output	-
Trigger level	-
Number of operating cycle of relay outputs	-
Switching capacity of contacts	-
Output data size	10 Byte
Technical data counters	
Number of counters	1
Counter width	32 Bit
Maximum input frequency	500 kHz
Maximum count frequency	2 MHz
Mode incremental encoder	
Mode pulse / direction	yes yes
	- -
Mode pulse	
Mode frequency counter	-
Mode period measurement	-
Gate input available	-
Latch input available	-
Reset input available	yes
Counter output available	-
Status information, alarms, diagnostics	
Status display	yes
Interrupts	yes, parameterizable
Process alarm	yes, parameterizable
Diagnostic interrupt	yes, parameterizable
Diagnostic functions	yes, parameterizable
Diagnostics information read-out	possible
Module state	green LED
Module error display	red LED
Channel error display	none
Isolation	
Between channels	-
Between channels of groups to	-
Between channels and backplane bus	yes
Between channels and power supply	-
Max. potential difference between circuits	
Max. potential difference between inputs (Ucm)	
Max. potential difference between Mana and Mintern (Uiso)	-



Max. potential difference between inputs and Mana (Ucm)	-
Max. potential difference between inputs and Mintern (Uiso)	-
Max. potential difference between Mintern and outputs	-
Insulation tested with	DC 500 V
Datasizes	
Input bytes	8
Output bytes	10
Parameter bytes	23
Diagnostic bytes	20
Housing	
Material	PPE / PPE GF10
Mounting	Profile rail 35 mm
Mechanical data	
Dimensions (WxHxD)	12.9 mm x 109 mm x 76.5 mm
Net weight	60 g
Weight including accessories	-
Gross weight	-
Environmental conditions	
Operating temperature	0 °C to 60 °C
Storage temperature	-25 °C to 70 °C
Certifications	
UL certification	yes
KC certification	yes